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D. MACLEAN, M. D. M. E. VAN METER, M. D. C. N. MILLER, M. D.

EDITORS

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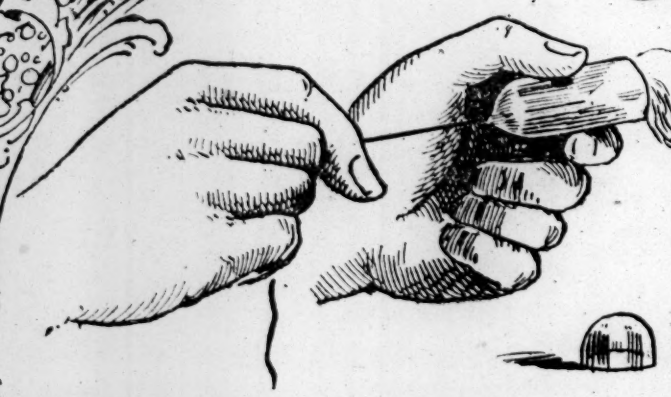

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CALIFORNIA MEDICAL JOURNAL.

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Original Communications.

What are Nerves?

By Drs. H. E. PASTOR and C. N. MILLER, San Francisco.

[This article has been prepared with a view to using the same subsequent to its publication in the JOURNAL. This ulterior purpose has necessitated a plan of treatment more elementary than would have been otherwise adopted. It is hoped and believed, however, that even those who have given some attention to the subject of neurology will find the following pages of interest, either as a review or a presentation of some points *de novo*.]

If a person step on a thorn or cut his finger, the mind is immediately apprized of the injury done, though the mind's habitation is neither in the foot nor in the finger, but in the brain. How is this information conveyed from one extremity of the body to the other with such surprising celerity and accuracy? If a lock of hair be stealthily cut from the back of the head, the loser would be none the wiser unless told of the theft, or he discovered it by sight or touch. Why is the mind so fully informed in one case, and not at all in the other?

The explanation is simple. There are little cords, or lines of communication, uniting the toes and fingers with the brain,while the hair is not so connected with this important organ. These minute cords are termed nerves, from *neuron* ("cord") an old name given them by the Greeks. Now, nerves are furnished with peculiar little contrivances on their outer ends which take careful note of all that is going on at the surface of the body and promptly communi-

cate to the brain all that they observe; and these little bodies, or "corpuscles" as physiologists call them (from the Latin word *corpusculum*, meaning "little body"), use the nerves as telegraph wires, along which to transmit their various messages. If one of these nerves should be severed, or torn apart, as sometimes accidentally happens, the line would be broken, and no news could then reach the brain from the little outposts on the surface of the body which were dependent upon that particular nerve for the transmission of their reports. You might then pinch, or burn, or even cut off the part which these helpless little fellows stood guard over, and the mind would never know it; or, if it did eventually find it out, it would be through the kind office of some fellow sentry, perhaps a long way off, and in a roundabout way, as through the watchman doing duty at the end of the nerve of sight. Fortunately, however, such a disaster does not often befall a nerve line, and when it does nature repairs the break in the course of a few weeks; so that these sentinel corpuscles are nearly always on duty, and in a condition for effective work.

Now, these corpuscles are expansions or modifications of the outer (or peripheral) ends of the nerves to which they are attached, and are hence called *nerve terminals* or end organs; and what they really send to the brain are *sensations*, or impressions that cause us to feel. The impression may be one of pain, as of a wound, or of pleasure, as of the touch of soft fur; it may be of heat or cold, of weight or of pressure. This class of impressions, including those that convey an idea of size, form, etc., constitute what are called *general or common sensations*, to distinguish them from another class of peculiar impressions—viz., sight, hearing, smell and taste—called *special sensations*, the end-organs of the nerves of special sense being much more elaborate and complex in structure than the end-organs of the nerves of general sensibility. We thus see what an important group of factors in the animal economy these end-organs are, and

how helpless, or altogether useless, the brain, the seat of the mind, would be without them. Deprived of their co-operation, the mind could gain no inkling of the existence of things external to itself. All knowledge of the form, color, distance, movement, etc., of external objects is derived through the activity of nerve terminals and their accessory nerves; and through similar means only, when implanted in the muscles, as will be shown later on, are we enabled to communicate to others our thoughts, feelings, and desires respecting these things. It is true, neither nerve terminals nor nerves hear the thunder of the storm, the sighing of the wind, nor the murmur of the brook; they do not see the splendors of a Yosemite with its setting of mountain, vale and forest, nor the gorgeous hues of a summer sunset; they do not smell the fragrance of a heliotrope, hear the sweet tones of a flute, nor taste the delicious flavor of an orange—but nerve terminals and nerves are the *only means* of communication between these things and the mind within. But for their aid the brain would be the mind's dark sepulchre instead of its many-windowed castle and its faithful interpreter of the world without. Let us, therefore, inquire somewhat more particularly into the structure and functions of nerve terminations, prefacing what is here said with the reminder that we are now considering the terminals of one class of nerves only—namely, *sensory nerves*. Other classes of nerves will be taken up further on.

NERVE TERMINATIONS.

When the nerves emanating from the brain reach the surface of the body they do not end abruptly in free extremities, like the bristles of a brush or the hairs on one's head, but undergo certain changes, or modifications, both in structure and in arrangement. These terminal modifications are not uniform for all kinds of nerves, but vary according to the different purposes different nerves serve in the body. *Sensory nerves*, for example, of which we are now speaking, and which receive impressions at the periphery (outside),

and convey them from without inward, are characterized by a class of terminations totally different from the terminations of *motor nerves*, which receive impulses from the nervous centers, and convey them from within outward. Again, the terminal organs of the *nerves of special sense* differ altogether from both the preceding. Furthermore, as the sensory nerves themselves differ in some respects from each other, possessing somewhat different properties and performing somewhat different functions, they are subdivided accordingly, and each subdivision is distinguished from the others by a different (but still allied) kind of end-organ.

Now, a word as to the manner of their distribution and a little light on that interesting question, so often asked, "Why is it that the finest cambric needle can not search out a place in the entire body devoid of sensation?" This requires a brief description of a somewhat involved and intricate branch of nervous anatomy; but we will strive to make it as plain as the nature of the subject permits. When a small branch of a sensory nerve, with its bundle of fibres, reaches the peripheral (outside) tissues of the body, it rapidly divides and subdivides, giving off separate filaments, which may be said to simulate the different strands of a raveled rope. These subdivisions meet again and reunite, forming a network of loops, or what is technically called a *plexus*, resembling in a general way a scallop of delicate lacework. This first plexus formation gives off, in its turn, another set of nervous filaments, which pass to the individual elements of the tissues, or which, as in the skin, reunite to form a second network, superimposed upon the first, but very much finer and more delicate. This latter is called the superficial plexus, while the former is called the deep plexus. The superficial plexus gives off the ultimate branches of nerve fibrils, which either penetrate and end in the cell elements of the tissues to which they are distributed, or else terminate in the corpuscular arrangements

before referred to; and the meshes formed by the reticulated fibrils of this final plexus are so exceedingly minute that it would perhaps be easier for the proverbial camel to pass through the eye of a needle than for the needle itself to pass through one of these meshes.

TERMINAL ORGANS.

We will now consider in detail a few of the the more prominent varieties of terminal corpuscles of sensory nerves. They are usually distinguished by the names of their discoverers, though their descriptive titles are to be preferred.

1. The largest of these corpuscles is an egg-shaped body, from 1-25 to 1-6 of an inch long, consisting of a number of layers of connective tissue, arranged like the several layers of an onion, but having a central cavity filled with a colorless fluid. It is known as the *corpuscle of Pacinus*, or Pacinian corpuscle. A single nerve fibre penetrates the corpuscle at its deeper end, passing into the central enclosure. These Pacinian bodies are situated along the nerves of the fingers and toes, beneath the true skin rather than in its substance. Their special function is not known.

2. A second variety is much smaller than the preceding (about 1-250 of an inch in diameter), and, as the name indicates, is intimately connected with the sense of touch. It is oblong in shape, and consists internally of a transparent gelatinous mass, and externally of a capsule of connective tissue marked by the presence of numerous nuclei transversely situated. It is called by physiologists the *corpuscle of Wagner*, or the tactile corpuscle. One or several nerve fibres are said to approach the base of this corpuscle in a waving course, to pass around it spirally several times, then to penetrate into its interior, and terminate in the gelatinous central bulb. The tactile corpuscles, though found elsewhere, occur most numerously in the papillæ on the palmar surfaces of the hands and fingers, and the plantar surfaces of the feet and toes. All papillæ do not contain tactile corpuscles; but as they occur

most abundantly and almost exclusively in those parts where the skin is endowed with a high degree of sensitiveness, they are evidently concerned in some important manner with the sense of touch.

3. A variety of end-organs have been described under the name of the *corpuscles of Krause*, or end-bulbs. They are somewhat similar to the tactile corpuscles, but smaller (about 1-600 of an inch in diameter), and simpler in construction. They consist essentially of a spherical or ovoid closed sac, with a homogeneous core,into which is received the ultimate branch of a nerve-fibre (usually from the submucous plexus.) When the fibre enters the interior of the corpuscle it forms a convoluted mass, resembling a worm coiled up in a bait can. The end-bulbs are found in the conjunctiva of the eye, in the lips, the tongue, and in the genital organs of both sexes, and quite generally throughout the skin.

There is a large extent of bodily surface, cutaneous and mucous, endowed with general sensibility in which no manner of corpuscles have yet been found. These areas are doubtless studded with special modifications of sensory nerve terminals, minute and obscure, similar to the more obvious forms just described. It seems probable, also, that these several forms of termination are specially adapted to receive the several sensations of contact, pain, temperature, weight, titillation, etc., just as the terminal accessory apparatuses of the nerves of special sense are specially adapted to receive their respective stimuli.

NERVES OF SPECIAL SENSE.

It is not practicable within the limits of space here at command to enter into a complete and detailed description of the end-organs of the nerves of special sense, nor is it necessary. It is sufficient for the purposes of this sketch to call attention to the facts that there are such end-organs, that they are elaborate and peculiar arrangements, and that they are usually devoid of general sensibility.

The nerve of vision terminates in the inner coat of

the eye, or retina, by a so-called layer of rods and cones, and is adapted for the reception of rays of light only.

The nerve of smell distributes filaments to the mucous membrane lining the upper half of the nasal cavity, and is capable of appreciating odorous impressions only, from substances in the form of vapor or gas. These filaments terminate ultimately in rods and (olfactory) cells.

The nerve of hearing terminates in an extensive distribution of hair-like cells (cilia) connected with a vibrating membrane and other accessory apparatus by which sound waves are collected and concentrated, and their various qualities analyzed.

Two nerves seem to be endowed with the sense of taste, one supplying the anterior two-thirds of the tongue, and the other its posterior third, uvula, soft palate, and the pillars of the fauces. The mechanism of taste is situated mostly in the tongue, and consists of peculiar structures called taste-buds and gustatory cells.

END ORGANS OF MOTOR NERVES.

In considering motor nerve endings it is well to bear in mind a very important distinction that obtains between them and the other nerve endings that we have just passed over. Endings of sensory nerves and of nerves of special sense are, as we have seen, the watchful outposts on the borders of the little kingdom whose seat and center is in the brain. Their business is to receive and forward messages of intelligence to this center, that the Mind, the imperial power residing there, may be kept fully and accurately advised of what is going on beyond the precincts of its immediate abode. The motor nerve endings do none of this work. They never send the faintest glimmering of intelligence to headquarters. They are the executive officers of this little kingdom. They *receive* orders or *impulses*, as they are called, and execute them. This being their office, instead of being situated in the skin (the external covering of the body), or in the mucous membrane (the internal lin

ing of the body), they are placed in the tissue of the muscles—those *movers* of the human frame. And as anatomists have found two kinds of muscular tissue in the body, so they have found two kinds of end-organs, one for each variety of tissue. Muscles whose action may be controlled by the will are connected by nerves directly to the brain and spinal cord, as those which move the legs, arms, etc., and are called voluntary muscles, or muscles of animal life; those which act independently of the will are connected by nerves directly to some of the ganglia of the sympathetic system, as those concerned in the acts of circulating the blood, digestion, etc., and are called involuntary muscles or muscles of organic life. Now, as a rule, the organs of voluntary motion are said to be composed of *striped* muscle, and those of involuntary motion of *unstriped* muscle, owing to the appearance, under the microscope, of transverse grooves or furrows in the fibres of the former and their absence in the latter.

When a motor nerve from brain or spinal cord penetrates the substance of an unstriped muscle, the numerous strands or fibrils of which it is composed branch out and anastomose (interlace), forming a plexus, called the ground plexus, which corresponds to the deep plexus of the sensory nerves. There is one ground plexus supplied to one of each group of "muscle bundles" of which all muscles are composed. From this ground plexus branches again pass off and again anastomose to form intermediary plexuses, one to each "muscle bundle." From these plexuses branches arise and pass between the individual muscle fibres and intercommunicate again, the nerve fibrils finally terminating in the muscle cells.

In striped muscle the nerve fibres from the sympathetic ganglia first form ground and intermediary plexuses, as in the case of unstriped muscle. When a branch of the intermediary plexus enters a muscle fibre, which it usually does at a right angle, its covering (neurilemma) becomes con-

tinuous with the covering of the muscle fibre (sarcolemma), and the nerve fibril spreads out into a thin oval expansion of granular matter, interspersed with nuclei. This expansion, which is the ultimate termination of the nerve, is called a "motorial end-plate." It lies in immediate contact with the contractile substance of the muscular fibre.

The function of the motor nerve terminals is to produce contraction of the muscular tissue, in obedience to impulses received from the brain and cord, or ganglia of the sympathetic system, and so effect movements—movements of change of position, or locomotion, when voluntary muscles are excited to action; and movements of the internal organs of respiration, circulation, digestion, etc., when involuntary muscles act.

NERVE FIBRES.

Nerve fibres are cords or lines of nervous matter running from the brain to all parts of the body, serving as *conductors* of impressions from without inward and of impulses from within outward. They are the great highways and the obscure byways coursing throughout the animal system along which all messages travel between the conscious and automatic centers of life and all other parts. They are the media of a system of intercommunication as much superior to the telegraphic wire system of Morse as *it* is superior to the old pony express. These threads run parallel with each other, cross each other at every conceivable angle, run up and down, hither and thither, and form perplexing networks; but howsoever intricate the labyrinth of their travels, they always begin at one center of intelligence and end at another—there is always a *something* at one end of the line capable of making up and forwarding a message, and a *something* at the other end capable of receiving and correctly interpreting that message. There is always a sender and a receiver; and although there may be some doubt about our clearly understanding the inner nature of this sender and receiver, there is no doubt whatever about their understanding each other.

In the great ocean cables we find large bundles of telegraphic wires enveloped in a single sheath, though each wire of the bundle carries a separate message, originating from a different source and arriving at a different destination. We find a perfect analogy of this arrangement in the nervous system. The white, glistening, cord-like nerve, so-called, which we see exposed on the dissecting table is just such a cable, and may hold in its encasement ten thousand single nerve-fibres. Now, a bundle of primitive nerve-fibres is known among anatomists as a *funiculus* (a Latin word meaning "small rope"), and the tubular sheath or outer covering of the bundle as the *perineurium*. A bundle of these funiculi is called a *fasciculus* (Latin for "small bundle"), and a nerve or nerve trunk is constituted of a number of these fasciculi bound together in a common investment of strong membrane called the *epinurieum*. Take the ulnar nerve as an illustration. The exceedingly slender, ultimate nervous filaments emerging from their peripheral end-organs in a small area of the skin of the inside of the little finger, for instance, after pursuing their devious course through the mazes of the deep and superficial plexuses (heretofore described), finally converge to form a sensory nerve fibre—the ultimate filament being known by the designation *fibril* (English) or *fibrilla* (Latin). This nerve-fibre, composed thus of fibrillæ, unites with similar nerve-fibres from adjacent parts, their union forming one of the digital branches of the superficial palmar division of the ulnar nerve. (By "union" must not be understood the coalescence of several fibres. The relation is one of *contiguity only*, each fibre pursuing an independent and continuous course from the periphery to the brain.) This digital branch unites with a second digital branch, forming the superficial palmar branch. Just before reaching the little pisiform bone of the wrist the superficial palmar effects a junction with the deep palmar branch, which has been formed in a manner similar to that of the superficial. The ulnar nerve may now be said to have properly be-

gun. At the wrist the articular branch is received, and in the ulnar's course up the the forearm the muscular and other branches are received from the circumjacent tissues. At the elbow it rests upon the back part of the inner condyle of the humerus, which is known as the "funny" bone, owing to the presence of this nerve and its exposed situation, rendering it liable to occasional slight injury, which gives rise to a tingling sensation. This nerve finally, at the axilla, joins other large nerve trunks to form the great inner cord of the brachial plexus, which in itself divides and passes upward to form partly the eighth cervical and first dorsal nerves of the spinal column. We thus see what a multiplicity of fibres must be contained in this single nerve trunk!

STRUCTURE OF NERVES

Having considered, in a general way, the distribution and arrangement of the nerve-fibres in the body, we are now prepared to take a closer view, and learn somewhat of their structural composition—what kind of substance, or substances, nerves are made of, and what *form* or forms, this substance assumes. A nerve-fibre, in its more complete form, consists of three distinct parts—a central, an intermediate, and an external part.

The central part, or core, runs through the nerve-tube like a stick of graphite through a lead pencil, or a slender column of water through a glass pipette. As this core is usually cylindrical in form, and as it occupies the longitudinal axis of the nerve-cord, it is called the *axis-cylinder*. This axis-cylinder is of extreme delicacy—finer than the finest strand of a spider's web. Its diameter ranges from about 1-5000 to 1-3500 of an inch. A transverse section is not always circular in form, showing sometimes a flattened or elliptical, and at other times an irregular outline. Its substance is an albuminous or protoplasmic material, rather firm in texture and slightly elastic. From the appearance of fine longitudinal striations, or lines, and the known fact

that in the final distribution of sensory nerves, and others, the axis-cylinder breaks up into numerous minute fibrils, it is supposed to be made up throughout its entire length of these fibrils, held together by an interfibrillar cement. Solutions of carmine and chloride of gold color the axis-cylinder red and black (or dark purple), respectively, while the other parts of the nerve-fibre are but little or not at all affected thereby. This staining device enables anatomists to trace out the ramifications of the ultimate filament of a nerve to a distance that would otherwise be impossible. The axis-cylinder is the essential part of the nerve-fibre, along which the nervous impulse is transmitted

Surrounding the axis-cylinder, and serving probably partly as a mechanical support and partly as a food supply therefor, is a peculiar fatty substance, constituting the middle or intermediate layer of the nerve fibre. From its resemblance to marrow it is usually termed the *medulla* (Latin for "marrow"), though it also goes by the name of the white substance of Schwann. This medulla is, as stated, of an oleaginous consistency, transparent, and fluid at the temperature of the body. It is not found at the origin of the nerve in the gray substance of the brain, nor at its extreme termination in the tissues of sensation or motion to which it is distributed, and hence it is not supposed to possess conducting power. By some physiologists it is considered to be an insulating sheath, analogous to the rubber tubing around a copper electric light wire; but the uses above ascribed to it are more probably its real functions.

Enclosing the two portions of the nerve-fibre just described—viz., the axis-cylinder and the medulla—is a thin, colorless membrane, apparently homogeneous in structure, constituting the external layer of the nerve-fibre. This layer is called the *primitive sheath*, or *neurilemma* (from the Greek *neuron*, "nerve," *lemma*, "bark"; hence, bark or cortical portion of the nerve). Its function is doubtless that of a protecting encasement for the nerve-fibre.

Now, nerve-fibres constituted as just described—of an axis-cylinder enclosed in a medullary layer, and these in turn invested by a neurilemma—are called *medullated nerve-fibres*, in contradistinction to a second variety, consisting of the naked axis-cylinder only, called *non-medullated nerve-fibres*. The latter are found mainly in the sympathetic system in man, are distributed to the blood-vessels, and do not essentially differ from the medullated kind, being merely simpler in structure.

There are two structural peculiarities of medullated nerve-fibres which it may be well to notice before dismissing this part of our subject. When such a fibre has been removed for microscopic examination, the medullary layer loses its fluidity and becomes semi-solid. With this increase of density its refractive power, which is high in the natural state, becomes correspondingly increased, so that the inner and outer limits of the medullary tube present dark, well-defined outlines. This double outline is known as the *double contour*. Again, the medullary layer has not a uniform thickness throughout the entire course of the nerve-fibre. At intervals of about 1-25 of an inch there may be observed well-marked constrictions, as if the fibre had been tightly tied with an invisible ligature at these points. This gives the fibre the appearance of a string of closely-set oblong beads rather than of a cord of uniform diameter from end to end. Such a constriction is called a *node of Ranvier* ("node" meaning knot, and Ranvier being the name of the discoverer of these nodes). At these nodes the medullary substance ceases, and the primitive sheath comes in direct contact with the axis-cylinder.

CHEMICAL COMPOSITION.

The chemistry of nervous tissue is not fully understood. Furthermore, such facts as have been brought out bearing on this point are of little interest to physiologists, as they throw no light whatever upon the physiological properties of nervous matter. The following analysis of gray and

white matter by Laissaique is reproduced from Gray's Anatomy:

	Gray.	White.
Water	85.2	73.0
Albuminous matter	7.5	9.9
Colorless fat	1.0	13.9
Red fat	3.7	0.9
Osmazome and lactates	1.4	1.0
Phosphates	1.2	1.3

NERVOUS EXCITABILITY.

A farmer's boy walking across a field suddenly spies a snake coiled up in the path just before him. He stops and watches it a few moments, but the snake does not stir. "Is it alive?" he asks himself. He is uncertain, but still cautious. He procures a long stick and at a safe distance proceeds to prod his snakeship—at first gently, then more vigorously. If the snake does not resent the disturbance; if he shows no signs of inherent movement, however violent the prodding, he is pronounced dead. This is a rude form of the test universally applied to distinguish between living and non-living matter. When living matter is agitated it always, under normal conditions, manifests voluntary movement. In other words, to use a technical expression, living matter *responds to a stimulus,* and this endowment or property of responding to a stimulus possessed by living matter is termed *irritability.* Now, most movements are easily perceived, while others are not so obvious. We cannot see the movement of a sound wave through the air, nor the movement of a telegraphic message along an electric wire,neither is there any visible change in a nerve-fibre when conducting a nervous impulse. Nevertheless, the air, the wire, and the nerve have all, in some obscure way, responded to the stimuli applied to them, and in a more prompt and powerful manner than if they were composed of contractile tissue, or matter which *showed* movement. Now, this special form of irritability possessed by a nerve is termed *excitability.*

Nerves are excited by different kinds of stimuli. The

ordinary, natural stimuli of nerves are the changes, more or less imperfectly understood, that take place in the central and peripheral organs situated at either end of the nerve. Other forms of stimuli may be classed under the head of *mechanical*, as pressing, pinching, pricking, etc.; *chemical*, as the application of acids or alkalis; *thermal*, as the extremes of heat and cold; and *electrical*, as the application of different kinds of electric currents. Of artificial forms of stimulation the electrical is usually preferred for purposes of experimentation, as it does not injure or alter the structure of the fibre, and may be repeatedly applied to the same nerve. An extended description of the electrical apparatuses used and the phenomena observed by experimenters in their investigations of the physiological properties of nervous tissue, while interesting, does not fall within the scope of the plan of this sketch. It is here necessary to say only that as a result of these experiments it has been shown that, under normal circumstances, sensory nerves invariably conduct impressions in but one direction, and that this direction is from without inward, and that the product of this impression is a *sensation*; that motor nerves as invariably conduct impulses in the opposite direction, that is from within outward, and in that direction only, and that the product of this impulse is a muscular contraction, or *movement*. However, it would seem, from an elaborate series of experiments made with this end in view, that the direction of transmission is determined, not by any anatomical or physiological difference in the nerve-fibres themselves, but by differences in the central or peripheral organs with which they are connected.

RATE OF TRANSMISSION.

The results of estimates arrived at by different methods and different experimenters demonstrates that the velocity of nerve force is very low in comparison with that of light, electricity, or even sound, though to our perception the transmission of the nerve current from one extrem-

ity of the body to the other is instantaneous. The generally accepted measurement places the velocity at 111 feet per second.

WHAT IS NERVE FORCE?

The intrinsic nature of nerve-force is still somewhat involved in obscurity. It has been a favorite theory with some physiologists that nerve-force is identical with electricity. While it is true that there is some analogy between the transmission of a nervous impulse along a nerve-fibre and the passage of an electric current along a metal wire, the analogy is incomplete. Each one of a large bundle of parallel nerve-fibres carries on its own individual work, without disturbing or being disturbed by a neighboring fibre. There is nothing analogous to the inductive effect of one electrical conductor upon another adjacent thereto. In other words, there is no diffusion of nerve-force, while electricity is diffused to all the surrounding parts. Moreover, were these two forces identical, nature would evince a lack of adaptability, as other tissues of the body (muscular, for example) are better conductors of electricity than is nervous tissue. A mechanical or chemical stimulus, too, is just as potent to arouse nervous action as an electrical stimulus. Again, the compression of a moderately tight ligature around a nerve effectually interferes with the passage of a nervous current, but not with that of an electrical current. The difference in the rates of velocity would also seem to suggest a difference in their nature.

What a nerve really conveys to the brain when its end-organ, for instance, is excited, is, in all probability, *motion*—not a movement of the nerve as a whole, but a vibration of its molecules, or smallest particles. When a sound wave strikes the ear it communicates its tremulous movements to the receiving apparatus of the auditory nerve, which conveys this motion to the brain, where it is translated into *sound*. The vibrating effluvium of a flower imparts its

motion to the terminal rods and cells of the olfactory nerve, and forthwith it speeds to the brain, where it makes itself known to the mind as *odor*. The taste buds and gustatory cells of the nerves of taste are excited to motion by the vibrating molecules of a piece of sugar or drop of acid, which in the psychical centers of the brain are appreciated as sensations of *sweetness* or *sourness*, respectively. So of light which stimulates the optic nerve. Light is now known to result from rhythmic, wave-like movements of a subtle substance called ether, supposed to pervade all space. These vibrations manifest themselves as *vision* when finally conveyed to the brain centers. There is a growing belief that all forms of force are, in the last analysis, molecular motion, manifesting differing modes under differing conditions. But this is not saying that nerve-force and electric force are one and the same thing, any more than that heat and mechanical energy are one and the same. At present we only know force in its differentiated forms—as a plurality, not as a unity.

Leaf from a "New Doctor's" Diary.

L. F., Oakland, Cal.

Bell rung at 6;30, A. M. Dressed in haste, and hurried to the door. Found a man in working men's clothes. "Some one sick," I ask.

"Well, no. D'ye want any one to take away your ashes?" He was a scavenger!

Office hours from 8, to 9. I wait and watch till 8;45, but finally my hopes arise. A well-dressed lady walks slowly up the steps. Ah, here is my chance at last! Women are the kind of patients who pay, thought I. With my brightest smile, I open the door.

"Good morning," she said slowly.

"Glad to see you,', I responded with a graceful bow.

"You are Dr.——I presume."

"Yes, that is my name. Come in, and please be seated.

You are just in time to find me before I go to make my round of calls, but I am now at your service."

"Sorry to detain you," she said, "but—"

"Oh, not all madam!" She is a little bashful, thought I, but she will soon feel at home, women are always a little timid when approaching a strange Doctor I suppose.

"I call on you because I feel you to be a person of influence. One who is well read on all the latest scientific developments, both in the realm of medicine and also in other branches as well."

"Indeed, I hope you will not be disappointed in me," I said, with inward satisfaction.

"No, I believe I shall not, I feel sure you will treat me as a lady, and that what I have to present will be received in a gentlemanly and business-like manner."

I assured her that any confidences would be fully kept, and "I shall spare nothing which will benefit you in any way," I added.

"Thank you Doctor." Herewith she drew a prospectus from her shopping bag and began showing me a book of Scientific Advances of the Nineteenth Century by Prof. H. W. Haines, A. M., Ph. D. "This," she said, "is a work which any man in your profession and of your standing will find profoundly interesting. As you have so generously pledged your support, please put your name right here. Of course you wish the full binding, which is only $12.50.

The pencil was in my hand, and my name was put down before I could gather my senses sufficiently to frame an excuse. How I am to get the money to pay for it,is the question now, but I think I'll be out when that woman calls again.

As soon as my thoughts settled, I took my satchel and walked around several blocks in great haste. This is for appearance sake. Continued till quite weary, and went home to refresh myself with lunch. The servant says a man just called who was very anxious to see Dr.——

"Why didn't you take his name and address? Confound a girl who hasn't learned her business yet!" I exclaimed.

"Well, you may overtake him now, he j st went down the street; a tall man with light overcoat," said Milly, and off I started. Catching sight of the individual described, I walked up, touched my hat politely and said, "Excuse me sir, but were you looking for Dr.——

"Yes, sir, I just called at your rooms, but you were out. How fortunate that I should thus meet you."

"I can now oblige you," I said feeling sure I had been just in time to save him from going to my competitor.

He drew a paper out of his pocket and said in a business like way, "I should be glad to take your subscription for the *News Gazette.*" "Thank you, I am well supplied with papers," and with a slight bow I walked away.

Returned to my lunch and ate in silence. One to four—office hours. I wrote an article for the Journal, on Treatment of La Grippe in the Epidemic of 1894, with Clinical Observations by the Author. I am sure it will meet with favor and do me credit.

At three, a lady came in with toothache and asked, "Can you pull a tooth? If you can, I want you to do it quick."

"Thank heaven for those forceps!" thought I. They were a little old, and didn't exactly fit. They were for pulling the incisors and this was a twelve-year molar, but I must make them do. "I will inject a little cocaine to render it painless," I said with grave dignity. This I did, then I pulled and pulled, but I couldn't get it. Finally I became nervous and gave a good yank and off it broke. *She* was getting nervous now, and said she guessed she would have to go to a dentist. "Oh, there is no need of that," I said, "It will not trouble you now. I will give you a prescription which you can apply to the root, and later you can have a gold crown put on which will be much better".

She took the prescription slowly, and asked the charges. "One dollar," I said, would be the regular price but as this

was an extraordinary case I should be entitled to two. "I haven't the money to-day" she said, "but will send it in the first of the week." With this she went out. I am wondering if I will hear from her again.

No more callers at the office. Spent the evening reading "The Century." Received a letter from Tom, my former classmate; said he heard I was making $200 a month, and offered congratulations. It is all right for him to think so but my! how I wish it were true!

Now I shall retire. I hope to be called up to an obstetric case before morning, and if I should I will record it to-morrow for the London Lancet.

Gastrectasia.

W. B. Church, M. D., Oakland, Cal.

Dilatation of the stomach is due to various causes. It is most commonly the result of mechanical obstruction of the pylorus. Malignant disease encroaching upon the lumen of the pylorus is responsible for many cases. This part of the stomach is also the frequent seat of gastric ulcer which healing by cicatrization may produce pyloric stenosis through cicatrical contraction.

Other conditions however lead to dilatation. Especially is this true of long continued gastric catarrh. A diseased condition of the mucous membrane extends in time to the underlying muscular coat, it becomes weakened, degenerated, and losing tonicity fails to contract with sufficient energy to completely empty the stomach at the proper time.

A coexisting etiological factor is a deficient secretion of gastric juice and diminished absorption of peptones, which result in an excessive accumulation of ingesta in the stomach; then follows abnormal decomposition of the ingesta with generation of enormous quantities of gas.

The muscular atony which characterizes chlorosis and

anæmia also often permits gradual dilatation of the stomach.

One of the important steps of stomach digestion is the peristaltic action of the muscular coat of the stomach by which the contents of this viscus consisting of peptones albuminoids etc., etc. are emptied into the bowel. Whatever impairs or greatly delays the proper performance of this function will tend to produce dilatation of the stomach. Whenever, therefore, we have impaired digestion, or delayed digestion from any cause, there is liable to follow a degree of dilatation. If a portion of the contents of the stomach be left behind until the next meal, on account of obstruction at the pyloric orifice, or by reason of inefficient contraction of the muscular walls, the contents increase, and the stomach becomes more and more distended. At length, when the accumulation has become excessive, violent emesis occurs which gives temporary relief, only to be followed by a repetition of the same round of accumulation to distension, and ejection by vomiting.

Grave disturbances of nutrition are soon manifest, accompanied by pain, eructuations, heartburn, constipation, emaciation, and depression of spirits. The absorption of intestinal gases causes serious nervous disturbance and insomnia.

The diagnosis may be made absolute by inflating the stomach with air; for accomplishing this a stomach tube and Politzer's air bag are convenient means. The outline of the stomach may be distinctly defined; the fundus filling the left hypochondrium and the greater curvature extending to or even far below the umbilicus.

The routine treatment of such a case by administering stomachics, peptics, tonics, nervines and sedatives will be barren of results, at least of good results.

Specific medication as usually understood and practiced, to wit: specif. med: gtts x aqua ℥iv, etc., is but little better.

If specific medication means clear conception of conditions i. e. correct diagnosis, followed by intelligent application of

remedial meaures, then all physicians of all schools will doubtless hasten to proclaim themselves specific medicationists.

While it may be well enough to examine the tongue and mucous membrane to determine whether the indication is for an acid or alkali, and also make the nice distinctions determining the exhibition of this or that specific, we will do well after all to fall back on the old much-maligned rule, as we usually do, and resort to, "means which have been found useful in such cases." First of all in importance is the use of the stomach tube, at least once a day, to completely empty the stomach of its irritating contents. By this means, many of the most distressing symptoms will be promptly relieved. In the next place comes the selection of food. If gastric ulcer be present,the dietary will be for a time very limited; milk if it agrees will be useful, ice cream is harmless and very grateful. but best of all is the raw-meat solution, or pancreatic emulsion. Other blood foods may be at length tried, and if they fail to digest or only partially, the residue will be removed by the tube and no harm follow by this means, also we shall learn what agrees best with an individual case. In most cases there is diminished hydrochloric acid, and digestion will be aided by giving gts. v to x in a wineglass of water before meals. Carb. iron will correct the anæmia, and such bitter tonics as hydrastis, gentian, and nux vomica or strychnia, given half an hour after meals, together with the application of massage and Faradism, will help to restore tonicity to the weakened muscular tissue.

Many cases may by such treatment be practically cured, others may be relieved and benefitted to such a degree that they will be able to undergo a surgical operation, which in favorable or non-malignant cases will usually complete the cure.

The following recent case in practice is submitted in illustration.

Miss L., native of Ireland, of healthy parentage, was well and strong until she was a little more than twelve years old; at this time her menses first appeared. She performed work beyond her strength, on account of sickness which took her mother for some months away from home. Stomach began to give her trouble at this menstruation, recurred two or three times, then was better until she was fifteen. At this time she suffered greatly from pain and sourness in the stomach and bowels which have never ceased to trouble her. Menses very irregular and had diarrhoea a good deal of the time. At eighteen had long illness, pronounced by her physician inflammation of the stomach and kidneys. Stomach was left very weak and irritable, necessitating extreme care in diet. There was amenorrhoea for the next two years with severe pain in the left iliac region and weakness in the back. Was treated for five months by a gynæcologist of Belfast, who pronounced the disease inflammation of the womb; this was in 1885. Ever since, menstruation has been profuse and too frequent, interval usually two weeks, very rarely three weeks.

From this time, stomach trouble grew worse; everything eaten distressed her and caused bloating and pain, which were temporarily relieved by attacks of vomiting with chills and extreme coldness of the extremities; diet was for years almost wholly confined to milk, abstaining entirely from meat, vegetables and fruit. In May, 1891, pain in the stomach was greatly aggravated and of a burning character, was treated for inflammation of the stomach with little relief. In the following July it became worse than ever. At this time the vomited matter was dark colored, almost black and in large quantities. In the first of these attacks there was noticed a thin covering of something which the doctor pronounced a portion of the mucous membrane of the stomach; following this the burning pain was agonizing. These attacks have continued to occur about once in two weeks, ever since. The pain is described as if something hot was

boiling over in her stomach. On several occasions vomited blood. She then became so weak and emaciated that she could not keep around. In November of the same year, Prof Johnson of Belfast was consulted; he agreed with the family physician that she was suffering from ulceration of the stomach and bowels but declined to treat the case deeming it hopeless, advising complete rest, no exertion whatever. She then concluded there was nothing in prospect for her but constant pain and weakness.

In the following spring and summer she improved slightly and in Sept. '92, it was decided to try the effect of a sea voyage. Accordingly with her mother she set sail for California, where she has since lived with a brother in Berkeley. For a few months seemed a little better, but soon relapsed into her old condition, and from New Year's, 1893, grew worse all the time, never free from the terrible pain, could neither eat nor sleep, and became so depressed that she no longer cared for anything, or wished to see anyone.

She had accepted her lot as one of inevitable suffering, and did not intend to make further effort. However, in '93, just a year after she left Ireland, she was pursuaded by a friend to consult the writer History of the case supplemented by physicial examination demonstrated a case of ulceration and dilatation of the stomach. On account of the long time the condition had existed, we were able to exclude malignancy.

Nutrition was greatly impaired, complexion sallow, extremely anæmic, a sad, pinched look, emaciated, and a great sufferer from insomnia. She was assured that she could be relieved of her pain in a week, and that her condition could at least be greatly improved. She was admitted to the Sanitarium about the first of October, and was overjoyed to find the promised relief from the long endured pain after one week's treatment. Treatment was continued for a month longer, using the stomach tube every day. Her diet was mainly milk with a daily dish of ice-cream; a piece of crust

was soon added and occasionally raw oysters. The improvement was quite marked in all respects. The insomnia was the last to yield and then only partially. The dilatation was so extreme that the muscular tissue had become attenuated to such an extent that there was little or no contractility left.

The patient was then advised that the use of the tube would have to be continued indefinitely as a palliation, but by a surgical operation she might hope to be fully restored. In other words she was asked to choose between her present condition with the prospect of indefinite treatment and surgical intervention with cure; she chose the latter.

Accordingly, she was placed on the table, and an incision four or five inches long made along the border of the right costal cartilages. The pyloric extremity together with the beginning duodenum was brought to the surface and an incision with sharp pointed bistuary was made through the walls of the stomach, about one and a half inches from the pylorus. This was extended through the pylorus to a point in the duodenum equally distant from the pyloric ring. The two *extremities* of this incision were then brought together at the pyloric ring and stitched, and thus the incision was changed so as to run *transversely*, and closed in this position with Lembert sutures of fine iron-dyed silk; by this procedure the lumen of the outlet,which before would barely admit an ordinary lead pencil, was enlarged to readily admit two or three fingers. Recovery was prompt. The result all that had been anticipated. There is now daily evacuation of the bowels without assistance, something unknown for years; ability to sleep fully restored, and a return of her natural cheerfulness with all the indications of good health.

Entropion Trichiasis, Etc.

By F. Cornwall, M. D., San Francisco.

In the February number of this JOURNAL appeared an article by Dr. O. S. Laws, of Los Angeles, Cal., subject, "A New Method of Treating Diseases of the Eye Lids," in which he claims priority in the use of certain appliances for taking the *warp* out of the incurved lid of entropion. I am of the opinion that, so far as published descriptions are concerned, he is the first to have put in print this operation. It is novel and ingenious, and he deserves great credit for having originated it. I will not reproduce the description of the method here, but refer the reader to the Doctor's article. I wish however to consider his criticism of the profession, or rather of oculists, regarding operations for entropion. It is a notable fact that our English brethren are behind oculists of the Continent or America in the refinement of the surgery of the eye. This is true, in a marked degree, of their treatment of trichiasis and entropion. It is a common occurrence at a London eye clinic to abscise the margin of the lid to cure this disease. Such a procedure is never seen in this country, in any centre of medical learning, or done by any American oculist. It would be considered mal-practice. This tendency to be behind the times in our English cousins comes from their extreme conservatism. The French and Germans are much more progressive. Nettleship, to whom the Doctor refers, is considered one of the most careful, skillful and eminent operators of London; but as stated by the doctor, he makes the remark, that there is but one way to surgically cure trichiasis, and that is to destroy the cilia follicles. He says that Arlt's and Snellen's operations need repeating in a few months.

Snellen's operation was the best one in vogue fifteen years ago, but since then it has been so modified by Knapp and others that it is now usually permanent as to its effects.

Holtz of Chicago has published a method of operating, found in Mittendorf's work on the eye, page 43, which, when modified to suit individual cases, is satisfactory to a

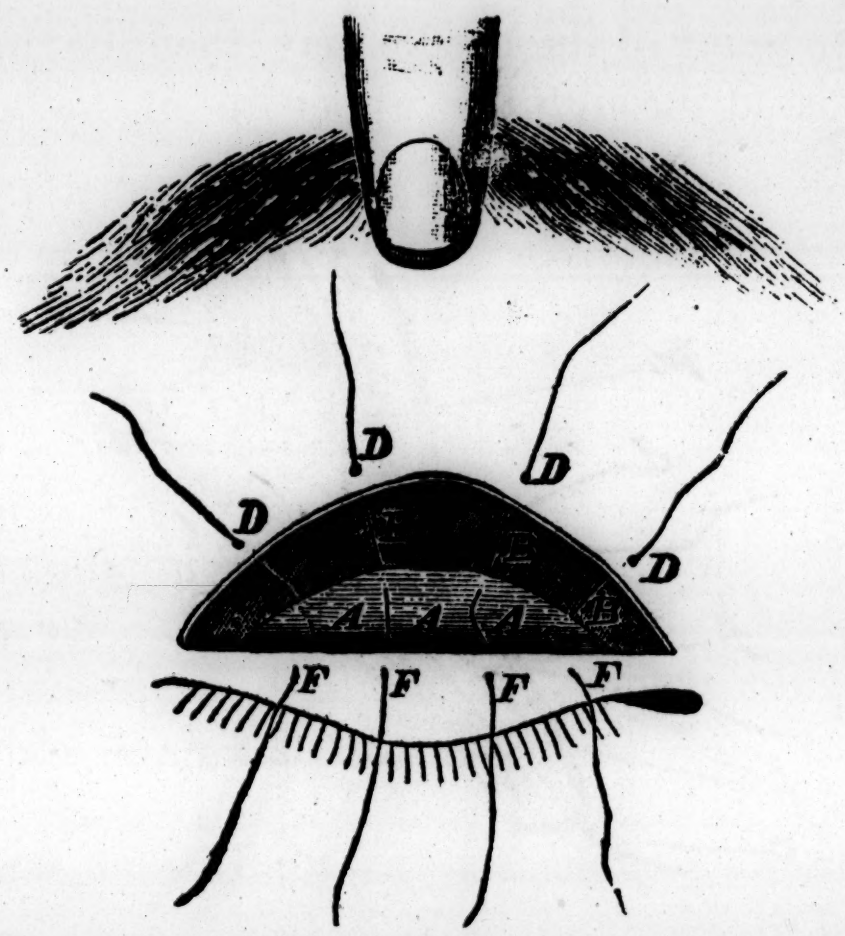

Fig. 1 Represents the application of the sutures. The lower border of the skin is pulled downward and the upper border upwards, to show the course of the thread through the aponeurosis. *F*, *F*, *F*, entrances of sutures into skin of lid. *A*, *A*, *A*, points of entrance, and *B*, *B*, *B*, points of exit in aponeurosis. *D*, *D*, *D*, *D*, stitch-holes in upper border of wound.

high degree. It is performed thus:—

Place the lid in a suitable clamp. Make an incision down to the cartilage on a line with the cilia, and about four millimeters above it; remove with scalpel or scissors any redundant tissue of the cartilage, and if warped inward at its margin, cut through it to the conjunctiva. If the operator choose he may make the V shaped groove according to Knapp. If there be an over-development of the lower border of the palpebral muscle, in order to lessen the blepharospasm, remove a strip the entire length of the incision two or three millimeters in width. Sutures may then be inserted. Introduce the needle first at the lower lip of the incision,

very close to the edge, pass upward to the top of the cartilage, where the needle is made to dip so as to catch the fascia at this point. This is inelastic and will furnish a fixed point toward which the margin of the lid may be drawn. The point of the needle may then be turned outward and passed through the upper lip of the incision as it

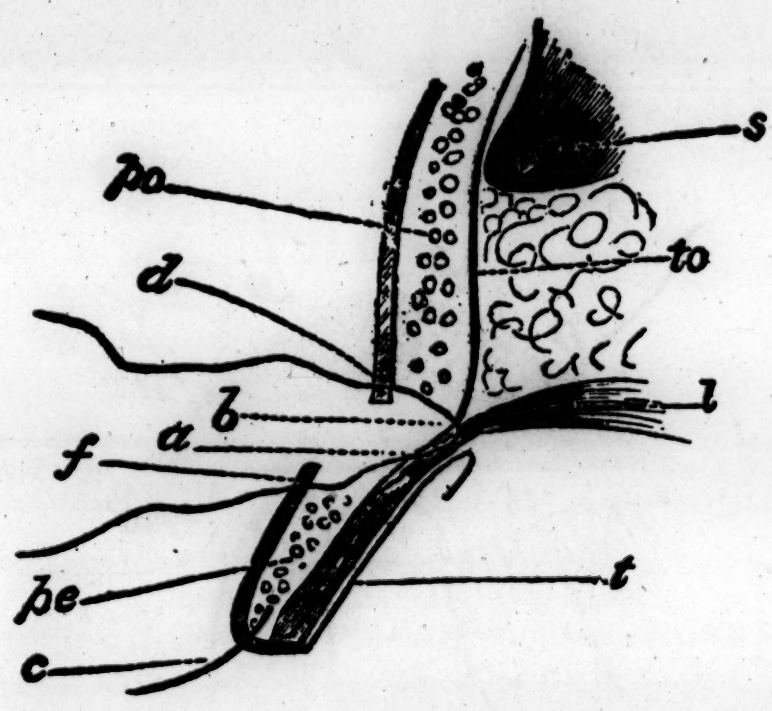

Fig. 2 Represents a vertical section of the eyelid; *s*, supraorbital margin; *to*, fascia tarso-orbitalis; *po*, pars orbitalis; *pe*, pars ciliaris of orbicularis muscle; *t*, tarsus; *c*, eyelash; *f*, lower border; *d*, upper border of the wound; *a*, *b*, passage of suture through aponeurosis.

did in passing through the lower lip. If the conjunctiva be contracted and inelastic the margin of the lid with its row of cilia will not move upward into the desired postion as freely as the operator wishes,and it may be incised near the margin. Mechanical skill and surgical experience will determine the modifications of this operation. An operator may get basic ideas regarding a surgical procedure, from authorities but the main dependence must be upon his own originality.

Reply to "Medicus."

By H. T, Webster, M. D,, Oakland, Cal.

Though probably not so intended, the opening words of the communication entitled, "A Different View," in the February journal might be construed into a supposition that I am opposed to inviting Eastern Eclectics to come to this Coast to live and practice. Contrary to any such idea, a standing invitation has always been out from me, to all Eclectics, the world over, to come and locate with us, provided they understand the situation fully before they make the sacrifice of breaking up and coming. I desire to save them disappointment, however, by refraining from painting the situation in too glowing colors beforehand. My experience is, that it is better to be favorably disappointed (if the figure of speech be admissable) than unfavorably so.

The question is, shall we represent this as a land overflowing with milk and honey to people thousands of miles away, and induce them to emigrate here with great expectations, only to have them blame us for it afterward? I do not prevaricate when I assert that in more than one instance I have been the recipient of communications from disappointed Eclectics who have come here on the representation that they could walk into a practice without any difficulty, but who, after a trial of several years, became heartsick and indignant at the glowing representations that had been held out. And these were not "blockheads, gamblers, moss-backs, fossils, loafers," nor anything disreputable; but the cream of the Eclectic profession, in some instances, and men who had proven their ability previously, by acquiring good practices in the East. I can say for myself, that I was disappointed at the outlook upon my arrival here. The disposition is, to paint the situtation in too glowing colors. Possibly an Eclectic might do well in the places "Medicus" mentions, but it is certain that in several of them Eclectics have located and afterward

moved out. If they are desirable places the situation of affairs at present fails to warrant such a conclusion in some cases.

We have a large atate, but it contains more room than people. Much of it is thinly populated, and many of the inhabitants are unsettled, and not the best of paying patrons. Also, it is the worst state in the Union, probably, in which to collect an account; the law allowing a homestead exemption of five thousand dollars. After several tilts with the law as a collector, I have learned to let the accounts that I cannot collect by persuasion go rather than sue; for the probabilities are that I will have a large bill of costs to pay before I get through, thus throwing good money after bad. And I have seen this matter tried time and again by others, with like results. A creditor of small amount possesses poor recourse in California, and had better lose his account than sue it—and well the average debtor knows it.

Eclecticism is getting into better standing here, as the years roll along, and I am glad to note it, and to find that an Eastern Eclectic occasionally comes among us and succeeds; but, if I were practicing in the east to-day, and were comfortably fixed, I would hesitate long before taking the decisive step of emigrating to California, if I intended to earn my living practicing medicine.

There is much truth in the suggestion that Eclectics should succeed where Allopaths do, but the kind suggested in "Medicus'" article is not the kind that are likely to come to California, unless they are out of health, and such men lack the bodily vigor to wage a successful fight against the odds likely to be met. If we can have good men, with plenty of means to feel independent and to enable them to settle down and stay with their competitors uutil they have proven themselves to the public—until they have shown the public that they represent a superior practice, I am much in favor of their coming; but such persons are few, and not likely to select our state for a location, as they are well

enough fixed at home. The discouraged ones, who move around from place to place until they advertise their incapacity to their enemies as well as to their friends, can certainly be no credit to themselves nor us; and such is apt to be the case with those not well supplied with means to make a staying fight.

The Eclectic who locates in California and gets a good practice can expect early opposition from Allopathic competitors. It is a custom with them, even though a place be so small as to warrant but one physician, to send one of their graduates in as soon as an Eclectic becomes established, to divide the spoils and choke him out if possible. Now, if he (the Eclectic) possess the requisite amount of ability and pluck, he will stay and maintain his ground if possible. But it may not be so. Men, women and children must eat and wear clothes, and all the ability in the world, against overwhelming odds and a prejudiced public, perhaps, will not enable one to overcome these obstacles in a few month's time. It is a melancholy fact, in spite of our confidence that many Eclectics have ignominiously failed to succeed in California, and men of undoubted ability as practitioners. They were out of their element; that was all, and they probably went elsewhere and made a grand success,

Californians, or those who have become habituated to the methods and ways here, are best calculated to succeed in California. It is true that there are sections in the state where the population has been largely transplanted from the East, where Eastern Eclectics are succeeding famously. I known that this is true in some instances, and would suggest to the prospective emigrating Eclectic that he locate in such a portion of the country if possible. Southern California therefore offers the best field.

Of course my remarks are calculated for the average person. Some people have the elements of success in them and will succeed anywhere. To such ones I say, come to California and help us make Eclecticism a grand success; for we need you.

But do not come expecting to be received with open arms by an admiring and appreciative public. Come expecting to acquire every inch of vantage ground only by hard and persistent effort, and come expecting the approval of the public only after you have earned it many times over.

Insomnia.

By Luella Stone, M. D., Oakland, Cal.

Sleep appears to be the result of the fall of temperature which is incident to the decline of destructive metabolism in the nerve centers. Insomnia is the result of the keeping up of pseudo-active metabolism and a consequent exaltation of temperature in these nerve cells.

The persistent tendency toward insomnia is generally recognized as one of the most dreadful of human afflictions, and the problem of how best to combat it is a difficult one, and often impossible or solve.

Sleep is a demand of nature, and is meant for rest—physical and mental—and new power for use comes as a consequence. It allows the recuperation of the vital forces to take place, and forms the basis of both mental and physical health. The loss of sleep means the loss of vigor and mental activity, and is two often the cause of the opium or chloral habit.

This form of suffering or disease is most frequently encountered among the intelligent and educated, the brain workers being peculiarly disposed to insomnia from constant strain imposed on the organ of the mind. The reason for this is not necessarily that the brain cells are the seat of disease, it comes from a depleting of the nerve force. Any expenditure of nervous energy in excess of that generated from day to day may in time so deplete the reserve capital of nerve force as to embarrass the workings of some part of the nervous system without any actual disease being present.

A large proportion of subjects affected with persistent insomnia suffer from some congenital defect of the eyes; the persistent eye strain resulting in an excessive expenditure of nerve force, which is apt to produce in time serious results upon the general health. This cause of insomnia is one which is not sufficiently recognized. Troublesome cases where the cause is obscure should receive thorough examination by an oculist, and should there be any defect in the eye, proper measures for relieving the visual disturbance will result in a cure or greatly improved condition.

Besides eye strain there are a large number of other causes for insomnia. The perverse habit of sleeplessness may be a result of years or possibly of generations of misuse of body or brain, or of excessive intellectual or emotional activity if sufficiently prolonged—as strain from over-work, business worries, grief, fear, pleasurable or distressing excitement etc. Of reflex causes,—gastric or intestinal indigestion are the most common. Organic disease of the kidneys, and diabetes often manifest their onset by persistent wakefulness. So also may cardiac or respiratory troubles, chronic diseases, gout, rheumatism, tuberculosis, syphilis and malaria. The habitual, excessive use of tea, coffee, tobacco, alcohol, morphia, chloral hydrate, bromides, cocaine etc., is a fruitful toxic source of insomnia. It may also arise from chronic poisoning from arsenic and lead; exhaustion from wasting dieseases; and impaired nutrition of the brain from either deteriorated quality or diminished quantity of its blood supply. Or it may be of vascular origin from hepatic disease, producing nervous stasis; from asthma; and hypertrophied or dilated heart, producing cerebral hyperæmia, anæmia, or nervous engorgement; or from neuropathic temperament, usually by inherited predisposition, but which may be acquired. This temperament is congenital or due to early interference with the normal development of the brain, to faulty training or bad habits of living. It shows itself in early childhood by irregular or disturbed

sleep, irritibility, disagreeable dreams and visions, romancing, periodic headaches, muscular twitchings, etc.

In the various stages of many forms of mental disease, insomnia is one of the most difficult symptoms to treat, and in many cases it is doubtless an early symptom where it had been regarded as a cause. In hysteria, hypochondria and organic diseases of the spinal cord and brain, insomnia will often tax our utmost resourses.

The therapeutic applications for insomnia present as wide a variety as the causes. Many times in obscure cases the conditions will have to be treated until the cause can be discovered, and then, as in all cases where the indications are present, they must be followed.

Those measures which permanently improve nutrition, stimulate waste-removal and restore the normal ebb and flow of metabolic activity, and thus the normal rise and fall of temperature in the nerve cells, have the largest field of usefulness in the cure of the insomnious condition.

One of the chief indications is to give hypnotic drugs but rarely; to use as far as possible the small dose, repeating as needed, and to be satisfied with the least amount of sleep that is safe when produced by drugs.

Sulfonal when judiciously prescribed stands at the head of hypnotics, producing a refreshing, quiet and physiological sleep without a systemic reaction.

Chloral Hydrate, Chlorabrom or Bromidia will be found most useful for the insomnia of delerium tremens. Hyoscyamus, Erythrina Piscidia, Erythroxylon Cocoa given in warm infusions find frequent use. Give Canabis Indica in cases where the patient cannot sleep without continually dreaming. Ignatia and Valerian—use more especially for women. Euonymous for insomnia from overwork; Stramonium relieves pain and thus the insomnia from this cause. A pure gluten preparation is recommended for insomnia due to nervous debility.

"Hypnotic suggestion" has many claims and supporters.

Where there is engorgement of the vessels connected with the cerebro-spinal system Oenantha Crocata will relieve the condition. In some cases after getting up from pernicious fevers the patient is restless and cannot sleep from an unnatural tension of the nervous system, then,

Diaphoretic powder, gr. ii,
Quinia Sulph, gr ss,

two or three powders taken in the evening, will relieve the tension and produce sleep. Pouring cold water on the head will relieve hyperæmia. In many cases of gouty or dyspeptic states, a hot bath properly administered is productive of a restful sleep. Those for whom on account of heart or vascular disease or great exhaustion the hot baths would be unsafe, massage will greatly benefit. This treatment will also be found very useful in cases of hysteria, hypochondria, nervous excitement from study or any brain work.

In cases of opium or other narcotic habit the wet-pack will serve admirably. This is a useful remedy in a wide variety of cases. Hot sponging to the spine, administration of hot milk, hot infusion of ginger, for old people, beef tea, hot baths with moderate cold to the head are all useful. The habit of wakefulness when there is no apparent cause may often be broken up by taking some light food—a glass of milk, and thin slices of bread, or crackers.

An extract from the Medical Press and Circular says: "Try nature's plan, instead of drugs; lower the supply of oxygen to the blood; produce a little asphyxia; limit the quantity of air to the lungs. The heart and circulation becoming slower the brain wlll lose its stimulant and sleep will follow. Cover your head with the bed clothes, and breathe and rebreathe only the inspired air. When drowsiness is produced, it is easy to go on sleeping, though you push aside the coverings and get as much fresh air as needed. The cat and dog bury their noses in some soft hollow in their fur or hair and soon drop asleep."

Will be a Success.

By H, B. Mehrmann, M. D. President california Eclectic Medical Society,

Thus far we can assure the JOURNAL readers that the meeting of the State Society to be held June 12th next, will be a successful and profitable one. The Committees appointed at the last annual meeting are busily engaged upon the work laid out for them, and their reports will be such as to call for the full attention of all Eclectic physicians.

Not only should those who are already among its fellowship be present, but those who are not now enlisted should also appear and be prepared to add their signatures and individual support to the society. The subscriptions to the fund to receive the National Medical Society are not arriving very fast, it is true, but it is to be hoped that those who are in a condition to do so will respond to the call for assistance ere many days pass.

This is no attempt to benefit any one Eclectic more than another. It is for all who are now practicing in this state, and also for those who may have the good fortune to hereafter locate with us. Therefore we should show a liberality becoming the adherents of a noble cause. Having cast our bread upon the waters, we await its speedy return tenfold. Should we be so unfortunate however, as not to obtain the meeting in San Francisco of the National Society this year, we will see to it that Eclecticism shall go forth on the twelth of June with colors flying and a full set of sails.

Below will be found the full list of subscriptions up to the present date (February 25). We had hoped that the list would be at least, twice as long, but we have somewhat overestimated the promptness of our fellows, that is all.

Give us the opportunity to fill one entire page of the JOURNAL in its next issue, by sending in your names and subscriptions at once.

Subscribers to the fund for securing the National Meeting of Eclectics in San Francisco next June:

Drs. H. B. Mehrmann	$10.	Drs. F. Cornwall	$10.
W. B. Church	10.	D. Maclean	10.
J. Fearn	10.	M. H. Logan	10.
B. Stetson	10.	G. G. Gere	10.
M. Mallory	10.	W. O. Wilcox	10.
M. E. Van Meter	10.	J. F. Mehrmann	10.
H. W. Hunsaker	10.	W. B. March	10.
P. F. Bullington	10.	W. Tanner	5.
J. G. Murrell	4.	R. J. Cross	5.
F. V. Wall	5.		

A Proposed Substitute.

By H. T. webster, M. D. Oakland, cal.

Editor California Medical Journal, Dear Sir: Apropos of the present agitation looking to a holding of the National Eclectic Medical Association in San Francisco this summer, permit me to remark that I would be in favor of it were it in the line of possibilities, but I am confident that it is not. The National will not come here on so short a notice, nor would even the necessary officers to conduct the meetings.

Now, I propose something not so chimerical, and yet a matter of the utmost importance—one which should interest and engage every true Eclectic in the world. I refer to the medico-legal situation in Utah at the present time. The Allopaths and Homœpaths have combined to choke the Eclectics out, and a set of laws have been passed which will surely do it if allowed to stand. But they are unconstitutional and unjust, and will not stand if carried to a higher court.

The Eclectics of Utah are few in number and not many of them are rich in money. They are well assured that the laws which threaten them and us are so glaringly unjust and unfair that a higher tribunal will reverse the present de-

cision regarding them and set them aside. In order that this may be done a fund must be created to help the matter through. This is a subject which vitally concerns every Eclectic, for if such laws succeed in one part, an encouragement is held out to our hereditary enemies in other states to attempt the same course. This is almost as much a triumph for our own special foes as if it had occured in California, and if it be allowed to stand it will be one of their arguments at the next legislature.

If the Eclectics of the country will act promptly it will be little trouble to raise the sum needed to carry this matter to the highest tribunal in the land. Suppose it cost as much as three thousand dollars—which it will not—a trifle each from many will not be missed and will make up the amount. I will pledge myself to contribute twenty five dollars towards this fund, if enough can be raised to prosecute the matter. Let us give up holidays and recreation, if necessary, until our friends adjoining can be protected by legal measures in practicing under an Eclectic diploma unmolested.

I wish every reader of this note would send a stamp to Dr. R. A. Hasbrouck, Salt Lake City, Utah, and get a circular containing particulars of this outrageous business.

The Eclectic Hospital of Cincinnati.

The following communication tells its own story plainly, and we commend it to the attention of our readers, Ed.

CINCINNATI, February 13, 1894.

Editor California Medical Journal,

Dear Sir:—

If consistent with the policy of your journal, please insert the enclosed appeal in an early issue.

We in Cincinnati will be ready and willing to assist any

Eclectic hospital similarily organized in San Francisco, St Louis, Atlanta or any other city.

Respectfully,
JOHN K. SCUDDER.

AN APPEAL.

On behalf of the "Committe on Ways and Means," We desire to appeal personally to every Eclectic for aid, for the maintenance of the Eclectic Hospital of Cincinnati.

As is probably well known, this hospital is incorporated under the laws of the state on the non-profit plan. It is under the management of a board of trustees.

The faculty of the Eclectic Medical Institute is doing all it can to place the Hospital on a substantial footing, but it is in *no way* connected with the Institute.

We need the assistance of Eclectics and friends of Eclectism *now*. Either,

1st. By sending the hospital pay and semi-charity patients.

2nd. By subscribing $5.00 annually for "Contributing Membership."

3rd. By agreeing to subscribe $30.00 for the maintenance of a free bed one month, to be paid in installments of $5.00 as needed by our Committee.

4th. By agreeing to donate $25.00 to $100.00 or more to our permanent building fund, payable whenever it is determined to buy or build.

5th. By urging any of your charitably inclined patrons to aid us in any manner they are willing

Respectfully,
AARON A. MCNEIL,
For Committe on Ways and Means.
515 Elm St,
Cincinnati, O.

THE CHICAGO MAGAZINE OF CURRENT TOPICS.

THE POPULAR HOME MAGAZINE.

Each recurring murder trial in which the insanity plea is either justly or otherwise set up by the defense, demonstrates the utter fallacy and untrustworthiness of the present system of obtaining expert medical testimony. To show how utterly unworthy of perpetuation the present system is, and how much more thorough and efficient expert medical testimony can be made as a necessary means of administering punishment to sane criminals or saving dangerous lunatics from judicial execution, is the purpose of a very interesting paper in the Chicago Magazine of CURRENT TOPICS, by L. Harrison Mettler, A. M., M. D. A photogravure of the noted specialist appears in connection. 15 cents a copy; $1.50 per year.

THE

CALIFORNIA MEDICAL JOURNAL.

The Board of Examiners of the Eclectic Medical Society of California, will mee throughout the year regularly at 4 o'clock P. M. on the second Thursday of each month, at the office of GEO. G. GERE, M. D., Secretary, 412½ Post Street, San Francisco.

Miscellaneous.

Theory and Practice.

By La Femme.

SYMPHYSIOTOMY ON MAN.—J Albarran recently presented to the Academy of Medicine of Paris, a man upon whom he had performed this operation in order to gain access to the anterior wall of the bladder. The incision extended from three fingers breadth above the pubes to the dorsum of the penis, the lower end was Y-shaped, each arm of the Y being one centimeter long. A separation of forty-two millimeters was obtained, the bladder incised and a papillomatous tumor seen inside. By means of the knife and scissors a piece of the bladder embracing the tumor six centimeters long by four broad was excised. The wound was closed by an external row of catgut sutures, uniting the mucous surface, and an external one of silk after Lambert's method Bleeding from the prevesical plexus of Sanborini was stopped by tamponing with gauze. Recovery was prompt and satisfactory.—*Pacific Medical Journal.*

***

Mouth Wash after extraction.—Dr. Cook, Professor of Dental Surgery in the California Medical College gives the

following excellent formula to be used locally after the extraction of teeth.

℞

Tannic acid.....gr. XX
Tr. Myrrh
Alcohol
Listerine.....aa ʒ ss
Water.....q. s. ad ʒIV

M.

***

Physician—"Now you will have to eat plain food, and not stay out late at night."

Patient—"Yes, that is what I have been thinking ever since you sent in your bill.

***

THE HAND AS AN INCITER OF LABOR PAINS.—Dr. Van Waters in the *N. Y. Medical Journal* recommends the introduction of the hand in the vagina in uterine inertia. When the case has so far progressed that we are satisfied it is time for delivery to take place, and inertia has supervened, instead of resorting to forceps, try this method. Thoroughly asepticize the hand and, after administering a little chloroform, introduce it gradually into the vagina. In a few moments pains will start up and increase in severity, sometimes to such an extent that the hand has to be quickly withdrawn.

Formula for Sore Nipples.—

℞

Ichtheol.....ʒi
Lanolin
Glycerine.....aa iss
Olive Oil.....ʒii

M.
Signa. Apply locally.

***

FOR HICCOUGH.—Hiccough can generally be stopped by

taking a teaspoon of sugar dissolved in strong vinegar. In obstinate cases in which other remedies fail, chloroform may be used, ten or fifteen drops at a dose, taken in a little sweetened water and repeated at an interval of fifteen or twenty minutes until three or four doses have been taken, if relief be not obtained sooner.—*Exchange.*

***

Housekeeper—"Why don't you go to work and earn money?"

Dirty Tramp—"They'd be apt to pay me in bank bills, mum, an' I'm afeared of bacteria."—*Good News.*

***

The prescription given below is from Dr. H. Kylberg. It was obtained for him during his travels in Sweden by an influential friend, upon condition that he should not open it till he had left the country. The properties ascribed are to extract pus if any be present and to heal any wound by promoting healthy granulations. The doctor states that in the cases in which he has used it, it has acted like magic.

℞

Lapis Calaminaris prec.		
Venice Turpentine		
Yellow Wax		
Goat's Tallow.....	aa	℥ii
Cotton Seed Oil.....		℥i

Boil up last four parts in clay pot, then add the calimina-ris and stir until hardening.

***

A MODERN MARTYR.—*Maud*—"There goes a woman who has suffered a great deal for her beliefs?"

Ethel—"Dear me! What are her beliefs?"

Maud—"She believes that she can wear a No. 3 shoe on a No. 6 foot, and a 23 inch corset on a 30 inch waist."

***

FOR EARACHE AND THROAT AFFECTIONS.—A Swiss doctor

claims to have found by experience a novel mode of relief in some affections of the throat and in case of earache, By making the patient yawn two or three times a day, the pains, he states, becomes distinctly lessened. In catarrh of the Eustachian tube, the yawning by distending of the muscles is said to act as a massage, and by this treatment the affection is frequently cut short. The possibility of so simple a cure should be known to all sufferers from earache. In any case, if no relief is obtained, no harm is done, nor would there be any delay in adopting any other treatment.

***

HAIR WASH.—The following is the formula for a wash to prevent dandruff and falling of the hair. It has been recommended in several journals and is pronounced a success by a number of physicians.

℞

Resorcin	ʒi
Beta naphthol	grs. XL
Sp. M· Jaborandi	ʒi
Tr. Cinchona comp.	ʒiii
Sp. Myrciæ qs. ad.	ʒiv

M.

Sig. Apply locally to the scalp.

***

A LIVING TESTIMONIAL.—*Stranger*—"And so you believe in Prof. Chloride's cure for drunkenness?"

Red-nosed Enthusiast—"Believe in it? How can I help believing in it? I've been cured six times!—*Life.*

College Notes.

In Memoriam.

The Angel of Death has invaded our happy College circle and called to the gardens of Paradise two of our most

promising students, Joseph Edwards and Herbert J. Le Huray.

Death will visit us all, and we shall be called upon to make the plunge from the shores of life into the sea of eternity. Irving tells us in beautiful language;—"The sorrow for the dead is the only sorrow from which we refuse to be divorced. Every other wound we seek to heal, every other affliction to forget; but this wound, we consider it a duty to keep open. This affliction we cherish and brood over in solitude. Where is the mother who would willingly forget the infant that has perished like a blossom from her arms; though every recollection is a pang? Where is the child that would willingly forget a tender parent, though to remember is but to lament? Who, even in the hour of agony, would forget the friend over whom he mourns?

The opening of the New Year was the closing of Brother Edwards' Book of Life. His noble spirit has taken its flight to brighter and happier realms, but like the shattered vase, to which the scent of the roses still clings, the memory of the noble life of our beloved school-mate will ever linger in our hearts.

Brother Le Huray's untimely death has indeed spread a gloom throughout the dear old College. All who had the pleasure of associating with him, held him in the highest esteem. His nature was sedate, tender and companionable,and he was never known to allow to pass his lips a word harmful to anyone. The funeral was largely attended by his Professors and fellow students, who sorrowfully and lovingly bade him "eternal rest" in the Valley of Sleep.

It is really true—

That kind words should ever be on the lips.—

That people should be more considerate of the feelings of others, and not be led into making sweeping assertions that may hurt we know not whom.—

That it would be wise for more of our bachelor students to follow Brother Harvey's example—But make your selection at home, please.—

That the operating room and other building improvements being made at the College are truly appreciated by the students.—

That concerning college students, the boys heartily welcome Miss Kelly, and that the girls fully appreciate the arrival of Drs. J. W. Bainbridge, E. H. Mercer, A. M. Field and F. Thomas.—

That we are pleased to hear that Dr. J. C. Pickering, a graduate of '93, is meeting with success in the town of Honcut.

LANCET.

Medical Societies.

The Alameda County Eclectic Medical Association met at 1065 Washington Street, with the President, Dr. Church, presiding. Roll Call and usual opening exercises. Good attendance.

The minutes of the previous meeting were read and approved.

Dr. Stetson then read an interesting paper on Catarrhal Affections of the Uterus, (Rec'd too late for publication, will appear next month, Ed.) after which the subject was generally discussed as follows:—

Dr. Fearn used local applications—tampons of glycerine and tiger lily in engorgement and subinvolution, with good success. When there is much tenderness, hot borax water. Howe's Escatol has been used with success where there were growths.

Dr. Mehrmann applied salicylic acid or iodine to the inside of the uterus instead of curetting, then cleanse with Listerine or carbolic solution and sprinkle or spray with aristol and pack the vagina to keep it dry. For atonic conditions nux and iron internally.

Dr. Church—Hot water douches should be a continual treatment, using the water as hot as it can be borne. Dilatation is of great importance and will cure many cases. If forcible dilatation is not desirable, an easy and safe method is to use slippery elm tents, making them about three inches long, moistening and inserting one over the other until sufficient dilatation is produced. Stenosis will be greatly benefitted by this process.

Dr. Mehrmann spoke to the society about the proposition to invite the National Society to meet at San Francisco.

It was moved and carried that the Society favored using due diligence in persuading the National to meet in San Francisco in June.

Dr. Stone was appointed to write on the subject of Insomnia for the next meeting.

Motion to adjourn—Carried.

L. STONE, Secretary.

OAKLAND, Feb. 13th, 1894.

The Alameda County Eclectic Medical Association met at 1065 Washington Street, with the President, Dr. Church, presiding.

Roll Call. Those present were, Drs. Church, Derrick, Kylberg, Farrar, Sharp, Stark, Stetson, Stone, Turner, Van Kirk, Webster and Young.

The paper for the evening was read by Dr. Stone, subject, Insomnia. (Appears under" Original Communications"—Ed.) The discussion which followed was interesting, as all present took part.

Dr. Van Kirk thought many cases of insomnia could be traced to indigestion, caused from eating hearty meals late in the day or evening. The change of the hearty meal to the middle of the day, with light digestible suppers at evening would cure the trouble. The tepid sitz bath, and baths with cold applications to the base of the brain, had been found preferable to hot baths. In light cases, cypripedium,

deep breathing for 20 minutes after retiring, and good fresh air. Dr. Young had tried successfully for insomnia from study in a young student, light meal at night, and before retiring a hot bath for a half hour with a cold wet towel at the neck.

Dr. Stark thought the Bromides and Canabis Indica disturbed the stomach, and considered Passaflora as the best and safest hypnotic.

Dr. Stetson had found Gel. 15 gtt. and Pul. 2 gtt. useful to quiet the nervousness of the busy housewife and to produce sleep.

Dr. Webster would prescribe exercise and proper hygiene, electricity, plenty of fresh air, and for nervous irritation, avena.

Dr. Church thought it best, in insomnia from cerebro-spinal disease, to lie awake rather than to use drugs to produce sleep.

In regard to food, as many fail to sleep from want of food as from too much. A glass of hot milk or sometimes a raw onion will be beneficial. Galvanic electricity, five to six mil., the larger electrode to the top of the head, the other to the neck, for about five to seven minutes will often produce sleep.

For the insomnia of delerium tremens, the best thing is two, or even three, dram doses of S. M. Digitalis—especially where there is extreme excitement.

Dr. Turner was appointed as essayist for the next meeting—Subject: Pseudo-Membranous Croup.

Meeting adjourned.

L. STONE, Secretary.

TERRALINE.

Herman D. Marcus, M. D., late resident physician at the Philadelphia Hospital (Brockley) reports a series of 250 cases of pulminary tuberculosis. Of this number 168 seri. ously objected to cod liver oil for the usual reasons. Sev-

enty-three cases were placed on Terraline, a purified petroleum mape by the Terraline Co., of Washington, D. C. Fifty-two of these cases had incipient phthisis, all of which gained rapidly in flesh. Cough gradually disappeared, and there was the most marked improvement in every way. Dr. Marcus classes these cases as "cured or greatly improved." Twelve of the cases were further progressed in the disease; and of these nine became so much better that they regained their former weight and are now only slightly troubled with coughs. The rest were too far advanced to be henefitted by medication.

SPRINGER, N. M.. Dec. 11, '93

HALL CAPSULE CO.,
Cincinnati, O.

Genttemen: I received the 1000 Ruby Capsules sent me by mail sometime since, and am very much pleased with them. They are excellent in quality,and the most convenient means I have ever seen where two kinds of medicine are given in Capsules to be taken in alternation. I enclose postal note, one dotlar. Kindly mail me another 1000 of the No. 2.

Yours, etc. L. HUIES, M. D.

ANTIKAMNIA—Hugo Engel, A. M., M. D., late Lecturer on Eclectro-Therapeutics, Jefferson Medical College, Professor of Nervous Diseases and Clinical Medicine Med-Chir. College, and Consultant in Nervous Diseases at St. Joseph's Hospital, Philadelphia, says: "Antikamnia has become a favorite with many members of the profession. It is very reliable in all kinds of pain, and as quickly acting as a hypodermic injection of morphia. It is used only *internally.* To stop pain five grains are administered at once; three minutes later the same dose is repeated, and, if necessary, a third dose given three minutes after the second. If ten minutes after the third dose the remedy has had a decided effect, but a little of the pain be remaining, a fourth dose of

gr. v may then be administered. In 92 per cent of all cases it immediately stops the pain.

The following is an excellent prescription in la grippe and painful bronchial catarrh.

℞

Antikamnia, (Genuine).....ʒij
Mist. Glycyrrh. Comp.....ʒiij
F. E. Rad. Glycyrrh.....ʒij
Vini Rubri Gall.....q. s. ft. ʒvj

M. Sig.—Two teaspoonfuls every three hours.

For whooping-cough in a child four years old.

℞ Antikamnia, (Genuine).....gr. xxxvj
Divide in chart, No. xij.

Sig.—At night one powder every fifteen minutes until three have been taken. Administer in dilute claret, or port or sherry wine.

As an antipyretic from gr. v to gr. x should be given every ten minutes until the temperature has been reduced, 40 to 50 grains have been taken, when the same dose is repeated at longer intervals, until the desired effect is obtained."—*Medical Summary.*

CHAS. DAY, M. D., 79 St. Mark's Square, London, says:

I have prescribed Iodia, (Battle & Co.) with very satisfactory results. Its power of arresting discharges was very manifest in a case of leucorrhœa, and another of otorrhœa. In the latter case, the result of scarlet fever in early life, the discharge had existed for many years. The patient could distinctly feel the action of the Iodia on the part, and the discharge gradually dried up.

DR. CHAS. NEDSKOV, Sorrento, Florida, says:

Papine (Battle & Co.) alone and in combination has been quite satisfactory. A case just dismissed may serve as an illustration. The patient, a married lady, I found suffering from ovarian congestion and neuralgia. After preliminary treatment I ordered Papine, teaspoonful doses, half-hourly administered. Pain relieved after third dose, and next day

she felt, to use her own words, "a thousand times better." Combined with Bromidia, a very noted improvement was effected in a case of "nervous prostration" and inveterate chronic insomnia.

Papine's chief recommendation appears to be its uniform reliability, coupled with comparative freedom from deleterious after-effects.

THE COMPANY which prepares Dr. W. R. Amick's chemical treatment for pulmonary diseases has established a New York depository at 114 Fifth Avenue. This move is necessitated by the constantly increasing demand upon the Cincinnati laboratory made by the physicians in New York and vicinity.

The depository is simply a supply bureau for the profession, obviating the inconvenience and the expenditure of time incidental to procuring the preparations from Cincinnati. The offer to all physicians of sufficient remedies to give a fair trial in each case, without charge will be continued; and test packages may be obtained from the New York depository.

Blenorrhagia of the nose. Dr. Coyzoline states that the most efficacious treatment is to begin with irrigating the nose with a solution of sublimate 0.10 or 0.15 to 1000.

Later on when the process becomes less inflammatory and more chronic, good results will be obtained by applying some caustic (Solution of sulpho-phenate of Zinc 1 to 30, Nitrate Silver 1 to 50) followed by insufflations of the following antiseptic powder;

Acid Boric	6 parts
Aristol	3 "
Dermatol	2 "

La Medicine Moderne No. 86.

Bureau of Information.

The State Medica Society has opened a "Bureau of Ininformation" regarding locations desirable for physicians and surgeons. Any one knowing of good ocations, or desiring to sell locations, or wishing competent assistants, should communicate with the secretary

Any advertised location in this JOURNAL that has been filled, please notify the secretary, that its publication may be withdrawn

The following locations have been sent in for publication:

COTTONWOOD, SHASTA CO.—It has been reported to this "Bureau" that there is an excellent opening for an Eclectic at the above town.

KNIGHTS FERRY—Twelve miles from Oakdale. No Eclectic in place. Good opening.

SAN FRANCISCO—Two thousand dollars will buy books and instru ments worth $1,000, furniture worth $1,500, and the good-will of a good paying practice in the city of San Francisco. Office rent free. Reason for selling, ill health. Address, "DOCTOR," California Journal Co., 1420 Folsom st., San Francisco.

WANTED—By a middle aged, married Physician and Surgeon a partnership in a well established practice, or would buy the whole. Must bear investigation. Address, with full particulars and lowest terms, "SURGEON," care of California Medical Journal Office, San Francisco.

FOR SALE, or rent; my home and horse. Only physician and druggist in town. Nearest doctor fifteen miles away. Good R. R. prospects. Will sell everything. Good place for the right man, with some money. Address "Physician and Druggist." Bieber, Lassen Co. Cal.

BEST LOCATION in the state for a physician with some money. For particulars enquire of Calif. Drug Co. 1420 Folsom St. S.F.

WANTED—Good location for Eclectic Physician on Pacific slope. Have old established pharmacy for sale in Chicago near business center.

R. M. Carr,
1412 Wabash Ave. Chicago.

Also two good locations in the country for active workers.

All letters addressed to the secretary of the "Bureau of ormation of Locations" will be answered promptly

J. C. FAMER, M. D., Sec'y,
921 Larkin St.
San Francisco.

THE CALIFORNIA MEDICAL JOURNAL.

VOL. XV. } SAN FRANCISCO, CAL., MARCH, 1894. { NO. 3.

D. MACLEAN, M. D., M. E. VAN METER, M. D., C. N. MILLER, M. D.,

EDITORS.

Terms: $1.50 per annum, In Advance.

The Editors disclaim any responsibility for the statements or opinions of contributors.

Expression is essential to growth. We cordially invite all Eclectic physicians who would keep abreast with the times to make frequent use of our columns.

To insure accuracy, employ the typewriter when possible, Otherwise prepare manuscript with care, re-writing when necessary; be kindly thoughtful of the Editor and compositor, and do your own drudgery—time is money.

This JOURNAL will be issued on the first day of the month.

Let all communications be addressed, and money orders made payable to the CALIFORNIA MEDICAL JOURNAL, 1422 Folsom Street, San Francisco, California.

Editorial.

Our Journal.

Our JOURNAL, for the first quarter of '94, has made a most satisfactory showing. It has been of increased size, well printed, and each number crowded with original and practical articles.

Subscriptions that have been allowed to fall in arrears are being rapidly squared up. All subscribers are renewing, and many are asking for sample copies to send to friends. Advertisers are beginning to realize that our JOURNAL affords a valuable medium for reaching the wide-awake physicians of the Pacific Coast.

Altogether our prospects were never better. The horizon is widening. We expect the coming quarter will place us in a position to be of still greater service to our patrons, but what we can do for our readers will depend largely upon what they do for us. A good deed done for our JOURNAL is bread cast upou the waters, that will surely return.

We wish to make our JOURNAL an encyclopedia of Eclectic Practice, always crammed with the latest and best in medicine and surgery. Send us the results of your experience, friends, that we may give them permanent record. We want items, points, favorite prescriptions, and also many more elaborate and carefully written articles on all subjects of interest to the profession.

College Day.

Eclectics from the interior, who can possibly do so, should make arrangements to be on hand the thirteenth day of next June. It is to be our opportunity at the Midwinter Fair; the day we celebrate; the California Medical College day.

A fine programme may be expected. Every part of it will be in character with the occasion. The speeches will be college speeches; the music, college music; the songs, college songs; and we'll paint 'em, generally, in college colors, from turnstile to Strawberry Hill.

The Oakland Sanitarium.

This Institution, of which Professor Church is the proprietor, is the only Eclectic hospital on the coast. It is well equipped for the care of both medical and surgical cases, and should receive the support of all our physicians. In the able artiele by Dr. Church, on "Gastrectasis",in the present number of the journal, a case is eited which illustrates the kind of work being done there.

JOHN MILTON SCUDDER, M. D.

Born September 8th, 1829,

Died February 17th, 1894.

Early on Sabbath morning, Feb. 18th, 1894, a messenger put a telegram in my hand, the contents of which ran:—

"My Father died suddenly last night in Florida,"

DR. J. K. SCUDDER.

I felt as no one can feel except one who has lost a dear friend, for such Dr. Scudder has proved himself to me for the last eighteen years. And so the last of the great Eclectic Triumvirate is gone! First Howe was taken, when we thought there were many years of grand work before him; then King, in a ripe old age, full of honors; and now Scudder, at a time when we hoped that his race was not nearly run.

John M. Scudder, M. D., was born in Hamilton Co., Ohio, on Sep. 8th, 1829, so that he was in his sixty-fifth year. At an early age he lost his father, and was then thrown upon his own resources for sustenance and education. But it is hard to suppress a nature like his, and though his medical education was deferred, it was only for a time. He was educated at the Miami University, Oxford, Ohio, and graduated in medicine at the E. M. Institute in 1856, in his twenty-seventh year; he was soon appointed to the chair of Anatomy in his Alma Mater. After this he filled the chair of Obstetrics and Diseases of Women and Children, and finally he was appointed to the chair of Pathology and Practice of Medicine in the same Institution, a position he has honorably sustained ever since.

On Sept. 8th, 1849, Dr. Scudder was married to Jane Hannah, from which union there were five children, of whom I believe only one remains, a daughter. Having lost his

first wife, he was married to Mary Hannah, a sister of his first wife, Feb. 5th, 1861, from which union there have been five sons. Of these five, two, if not three, are graduates of the E. M. Institute, and are helping to perpetuate the name of their father.

As a man, he had a strong personality. His appearance denoted him to be a man of neat and careful habits, one who fought dirt in the home, at the bedside of the sick, and in the medicine supplied by the pharmacist. Who that has listened to his lectures can ever forget his denunciation of dirty fluid extracts, often inert because of their dirtiness. By his earnest and untiring efforts in these directions, we have an elegant class of remedies to-day. For he was not only the author of Specific Medication, but he was the author and originator of Specific Medicines, the one the counterpart of the other, and which both stand as monuments to his untiring energy. He was kindly and sympathetic in his nature. Some have thought that his attention to personal finance went too far. These persons fail to take into consideration that, in his early life, he had to fight with poverty, and that when he laid hold of the E. M. I. that Institution was, and for sometime remained, crippled financially. By close financering, however, he succeeded where a man less careful would have made absolute failure.

His capacity for work was immense. During the winter of 1876–7, I had good opportunity to form some idea of his labors. And I have never yet ceased to wonder how one man could accomplish so much,—editing the Journal, attending a considerable practice, writing books, answering a very large correspondence, every morning for six days per week lecturing at eight o'clock in the college for nine months in the year,—and always looking fresh. That winter there was a good deal of sickness among the students, yet I never heard of this busy man refusing to call upon a sick student, and so far as I know it was without money and without price.

As a teacher, he was unique. In the best of his days the E. M. I. had a trio of teachers, which probably never were excelled; and though Prof. Scudder had not the keen wit nor versatile genius of Prof. King, the vigorous onslaughts nor quick repartee of Prof. Howe, yet for impressiveness, for ability to impart instruction to a dull pupil, perhaps he has never been equalled. Never verbose or prolix, never threatening nor trying to drive, how his wonderful patience with dull scholars will be remembered! Never getting cross, but sticking to the dullard, with a smile on his face and kind words of encouragement, till the mystery was made plain, can we wonder that his students loved him!

As a business man he was a great success. Since 1862 he has edited and published the E. M. Journal. This has entailed upon him a wonderful amount of labor, but it has grown steadily under his fostering care, till to-day it has an immense circulation, and is prized by a large circle of intelligent medical readers beyond his own school.

During the dark days of the civil war, he was elected Dean and Treasurer of the E. M. Institute. By his business sagacity and indomitable energy, he carried it through those times, through the after time of poverty, and through fights and discussions of rival factions among the professed friends of the Institution. He has seen thousands of physicians graduated from the Institution while under his care, and he now leaves it in good financial condition, with an able and united faculty, and with the ability of giving a medical education, equal to that of any institution in the land.

As a writer, his works are before the world and will be judged from the various standpoints of their critics. Scudder was no pedant. His works are the works of a busy man, written for busy men. An old Scotch parish clerk describing the preaching of his pastor said, "The Dominie jumbled the judgment and confounded the senses." There is a great deal of the medical writing of the present day that is just like that—Scudder's was entirely different. It is so plain that he who runs may read.

The points in his arguments are like the sting of a wasp, always very prominent and easily discovered. I could have wished that Scudder could have lived long enough to revise and bring several of his books down to date, but he is gone. To those few who cavil about his writings, let it suffice to say that the immense sale which these works have had, some of them going through many editions, the fact that they are bought up, read eagerly and preserved carefully by a very large class of physicians outside of his own school, are proofs sufficient that Scudder was an author of no mean ability; and this writer believes if he had written nothing but those two little volumes, Specific Medication and Specific Diagnosis, these two books would entitle him to the gratitude of every physician, who in his fight with disease, aims to remove the cause of the disease. Some have tried to rob him of the credit of being the discoverer of Specific Medication, in this I think they have miserably failed. And in the coming years his name will be inseparably connected with "Specific Medication", a successful attempt to lift medicine from empericism and uncertainty, and place it upon a foundation of scientific accuracy. It has been said that Specific Medication is nothing but a bastard Homœopathy, I hesitate not to say that this is false; in spite of his small doses, Scudder gave more medicine than Homeopathists, and, as I stated in the pages of the E. M. Journal a few months back, in giving medicine, he looked for different physiological results from those sought by Homœopathists.

John M. Scudder has gone. In his day, he did a good work for the school to which he belonged, a good work for the medical profession in general, and for the world of sick people at large. I am one of the many who think that no man ever did more for practical medicine than our deceased friend. He will be missed in the college. The Editor's sanctum which has long known him, will know him no more. But in his day he made provision for the perpetua-

tion of the good work in which he was so long engaged. There are hundreds ready to take up the standard which has fallen from his hands, and if our friends who have left us and gone on before are conscious of our condition, and can be made happier by our well doing, then surely nothing could so please the subject of these lines, as to see us close up our ranks, each man true to himself, and every man true to our glorious cause, determining that the cause of progressive, liberal, scientific medicine shall be our cause and that we will earnestly contend on the same lines, till we, like him and the great and good who have gone on before, are called from labor to reward.

JOHN FEARN, M. D., OAKLAND.

BOOK NOTES.

"The modern climatic treatment of invalids with Pulmonary Consumption in Southern California," by P. C. Remondino, M. D., member of the Am. Med. Association, Am. Public Health Association; ex-Vice President Cal. State Med. Society; member of State Board of Health of Cal. etc.

The peculiarities and varieties of our climate first occupy the attention of the author, whose qualifications and experience have rendered him admirably fitted for the task in hand. The various affections, pulmonary, renal, malarial and rheumatic, are then separately taken up with reference to climatic treatment.

This work is worthy the attention of both physician and patient. To the invalid contemplating a trip to our clime it will prove an invaluable guide, and to the physician, of great service in aiding him to intelligently answer the oftentimes perplexing question, of desirable location in special forms of disease. The book is of the Physician's Leisure Library Series. Price, in cloth, 50 cents. Pub. George S. Davis, Detroit, Michigan.

"Mechanical aids in the treatment of chronic forms of disease," by Geo. H. Taylor, M. D., author of Health by Exercise, Manual Massage, etc. Pub. George W. Rodgers, New York.

This book contains, in addition to the descriptions of the Postural or Lifting Couch, an apparatus for the relief of pelvic affections, and the chest developer, an instrument for the correction of thoracic symmetry, and an able article on the subject of marriage in which is enunciated its principles, varieties, factors, adaptation and therapeutic effects. It will well repay anyone for the time expended in its perusal.

"Abnormal Man," by Arthur McDonald, specialist in the Bureau of Education. We wish to favorably mention this work received recently from the Bureau of Education. It is a compendium of essays on Education, Crime and related subjects. Published at the Government Printing Office, Washington.

"Prevalent Errors in the Treatment of the Diseases of Women" pamphlet form by G. Betton Massey, M. D., publisher, George S. Davis, Detroit, Mich.

The first part of this pamphlet is devoted to current errors in the practice of Gynæcologists, and the latter to various erroneous views of gynæcology held by general practitioners.

The role of the critic, as the author himself asserts, is not a pleasing one, yet it is essential to all advancement. We, therefore, welcome to our table this article and commend its purpose, as we do all efforts put forth for the suppression of error and the advancement of truth in the cause of medicine.

THE PHYSICIAN'S WIFE; and the Things that Pertain to Her Life. By ELLEN M. FIREBAUGH. With portrait of author and 44 photo-engravings of original sketches. In one Crown Octavo volume of 200 pages. Extra cloth, $1.25 net. SPECIAL LIMITED EDITION, first 500 copies, numbered, and printed in photo-gravure ink on extra-fine enamelled paper; bound in Half-Leather and Vellum Cloth, $3.00 net. PHILADELPHIA: THE F. A. DAVIS CO., PUBLISHERS, 1914 AND 1916 CHERRY STREET.

The "Physician's Wife" by Ellen Firebaugh is an entertaining bit of light literature, replete with pathos, rich humor and fine sarcasm. It deserves the occupany of every physician's library. The sparkling genuineness of its character will brighten and entwine itself with the warmth of sunbeams throughout the family circle. The author's graphic description of a country doctor's life speaks for the book great popularity amongst the entire medical fraternity, for most physicians' have had similar experiences.

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IN GYNÆCOLOGY.—It is useful in irritating and offensive discharges concomitant to diseases of females, giving rise to pruritic and inflammatory conditions. Leucorrhoea, simple vaginitis and vulvitis, ulcerations and pruritus vulvæ, are conditions in which it is particularly indicated.

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Your Asepsin Soap I used without faith, but with astonishing and almost immediate relief and ease. I think I have never before recommended any special preparation, but nothing less than gratitude is due you for this benefit, and that gratitude I express most heartily now. I have delayed this letter many weeks, but I am still as thankful as ever, for my suffering was of a kind not to be forgotten,

PAUL T. BUTLER, M. D., Alamo, Michigan

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